

What is claimed is:

1. A composition comprising a persulfate, a fluorine containing acid, and boric acid or a salt of boric acid or mixtures thereof.
2. The composition of claim 1, wherein the persulfate comprises sodium monopersulfate, potassium monopersulfate, or mixtures thererof.
3. The composition of claim 1, wherein the fluorine containing acid comprises hydrofluoric acid, fluoroboric acid, fluorosilic acid, or mixtures thereof.
4. The composition of claim 1, wherein the salts of boric acid comprise lithium, sodium, potassium salts of boric acid, or mixtures thereof.
5. The composition of claim 1, further comprising an additional inorganic acid.
6. The composition of claim 5, wherein the additional inorganic acid comprises sulfuric acid, phosphoric acid, phosphorous acid, or mixtures thererof.
7. The composition of claim 1, further comprising one or more adjuvants.
8. A composition comprising potassium monopersulfate, fluoroboric acid, boric acid and sulfuric acid.
9. A method of preparing a composition comprising:
  - a) providing an aqueous solution of a persulfate;
  - b) mixing a concentrate comprising boric acid or a salt of boric acid and a fluoride containing acid with the aqueous solution of the persulfate to form a first mixture; and
  - c) mixing an additional inorganic acid with the first mixture to form a stable second mixture.
10. The method of claim 9, wherein the persulfate comprises an alkali monopersulfate.
11. The method of claim 9, wherein the fluoride containing acid comprises fluoroboric acid.
12. The method of claim 9, wherein the additional inorganic acid is sulfuric acid.
13. The method of claim 9, further comprising the step of adding at least one adjuvant to the stable second mixture.

14. A method of microetching a metal comprising: contacting a surface of a metal with a microetch solution comprising a persulfate, boric acid or a salt of boric acid, a fluoride containing acid and an additional inorganic acid to remove a portion of the surface of the metal.
15. The method of claim 14, wherein the persulfate comprises an alkali monopersulfate.
16. The method of claim 14, wherein the fluorine containing acid comprises fluoroboric acid.
17. The method of claim 14, wherein the metal comprises copper.
18. the method of claim 14, wherein the microetching is performed at a temperature of 80° F to 100° F.
19. The method of claim 17, wherein the copper saturation and crystallization concentration in the microetch solution is greater than 40 grams/Liter.
20. The method of claim 14, wherein the metal is part of a printed circuit board.